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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,059	04/01/2004	Henry Copeland	5101-89373	9637

24628 7590 03/02/2006

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EXAMINER
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COZAD, JULIANNE M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/816,059	COPELAND, HENRY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Julianne M. Cozad	3671	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/1/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claims 2-5 and 7-9 are objected to because of the following informalities: must say "*The* planting machine" not "A planting machine" to refer back to the respective independent claims. Appropriate correction is required.
2. Claim 7 is objected to because of the following informalities: "further comprising a *from*, wherein ..." is not understood. Examiner is treating this as a typographical error and that applicant meant to say "further comprising a *frame*, wherein...". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolk et al. [US3,872,805].

With respect to claim 1, Kolk '805 discloses a planting machine for planting seedlings into soil in a regular and uniform sequence, comprising:

- A frame (43,44,45)
- A plant delivering unit comprising:

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- A means 131 for conveying seedlings from point of manual insertion 123 to placement in sequence in soil 84
- A means (94, 95) to open and maintain a furrow in soil
- A means (67,68) to close furrow after deliver of seedling
- A rotatable drum 131, compartments on outmost surface 140, compartments being outwardly open
- An upright conduit means 84 for acceptance and guidance of seedlings released from drum to furrow opening means

With respect to claim 2, said rotatable drum has a central shaft (Figure 2) allowing for rotation about lengthwise axis, comprising compartments 140 between adjacent plates mounted for rotation on outer surface of said drum (Figure 6).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3,6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk '805 as applied to claim 1 above, and further in view of Williames [US 6,327,986 B1].

Kolk '805 discloses the planting machine as shown above.

However, Kolk '805 does not disclose the use of an air jet to propel the seedling out of the conduit means.

Williames '986 discloses a similar planter machine which utilizes an air jet (28, Figure 4) for keeping the delivery of seedlings more uniform and predictable. Regarding claims 3 and 6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the seeding machine of Kolk '805 to include the air jet of Williames '986 to facilitate more even planting due to more accurate discharge of the seedling from the conduit means as taught by Williames '986.

With respect to claim 7, Kolk '805 discloses a frame (43,44,45) and mounting the plant delivering unit (disclosed above) to said frame.

With respect to claim 8, said frame is suitable for being pulled behind a tractor (Col. 3, lines 44-45).

With respect to claim 9, Kolk '805 discloses a traction wheel (30,31) mounted to frame and being interconnected with said plant delivering unit to drive plant delivering unit (Col. 3, lines 65-68).

With respect to claim 10, the combination of Kolk '805 and Williamses '986 disclose the method as disclosed above, it will be mentioned here for clarification:

- Inserting seedlings into a rotatable drum
- Conveying the seedlings to a point of release
- Releasing the seedlings at the point of release for planting
- Facilitating release of the seedlings at the point of release by a jet.

With respect to claim 11, Williamses '986 discloses a jet which is air from a nozzle 28.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kolk '805 and Williamses '986 as applied to claim 3 above, and further in view of Bouldin et al [US 5,860,372].

The combination of Kolk '805 and Williamses '986 discloses a planting machine as shown in paragraph 6 above.

However, the combination does not disclose a manually adjustable seedling release point.

Bouldin '372 discloses it is advantageous to be able to reposition the air jet to accommodate various sizes of seedlings as depicted in Figures 6A,6B. It would have been obvious to one of ordinary skill in the art to modify the planting machine of the

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combination to allow for adjusting the point of seedling because it allows for adaptability to varying sizes of seedlings release as taught by Bouldin '372.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk '805 as applied to claim 1 above, and further in view of Bouldin '372.

Kolk '805 discloses a planting machine as shown in paragraph 4 above.

However, the combination does not disclose having at least a portion of one side of rectangular conduit being open and unrestrictive to the flow of particles.

Bouldin '372 discloses it is advantageous to have at least a portion of one side of rectangular conduit 107 be open and unrestrictive to the flow of particles because it allows for planting of varying size of seedlings. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the planting machine of the combination to have at least a portion of one side be open so as to allow for versatility in which types of plants the machine can plant as taught by Bouldin '372.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kolk '805 and Williames '986 as applied to claim 10 above, and further in view of Cochran [US 3,379,147].

The combination discloses a planting machine as shown in paragraph 6 above.

However, the combination does not disclose the use of a rotatable drum conveying the seedlings to the point of release.

Cochran '147 discloses a similar planter which utilizes a planting wheel or rotatable drum to regulate the amount of desired plant per unit area (Figure 4, Col.1, lines 61-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to utilize a rotatable drum as taught by Cochran '147 to convey the seedlings to the point of release because it would more effectively regulate the distribution of the seedlings over the ground.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julianne M. Cozad whose telephone number is 571-272-6946. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



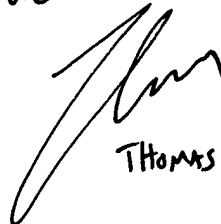
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMC  
12/1/2005

THOMAS B. WILL  
Supervisory Patent Examiner  
Group 3600

For

A handwritten signature in black ink, appearing to read 'Thomas Beach', written over a large, stylized, sweeping mark that resembles a checkmark or a large 'L'.

THOMAS BEACH